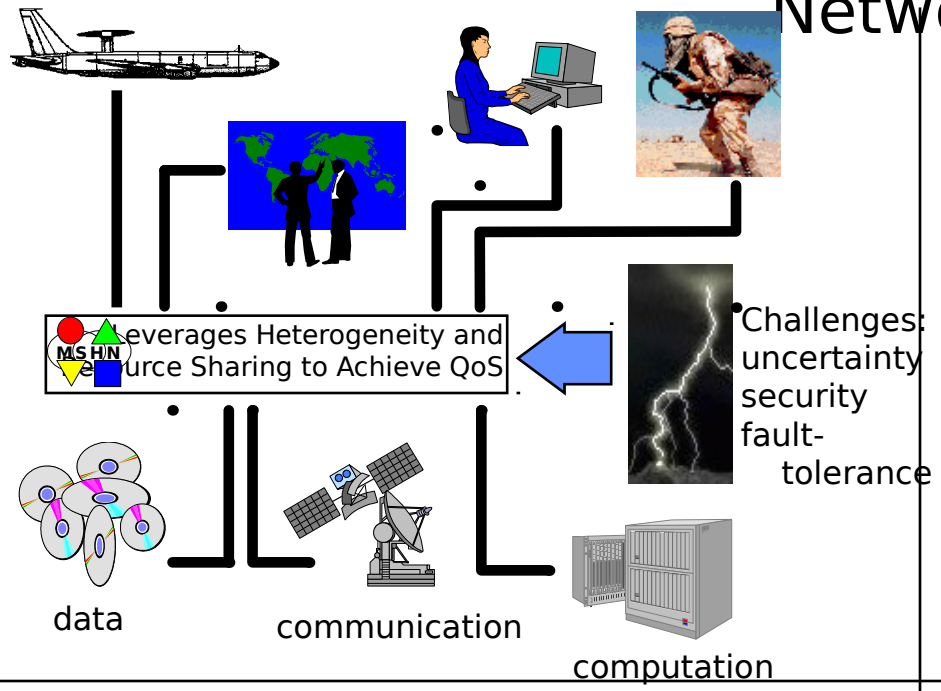
MSHN: Management System for Heterogeneous Networks



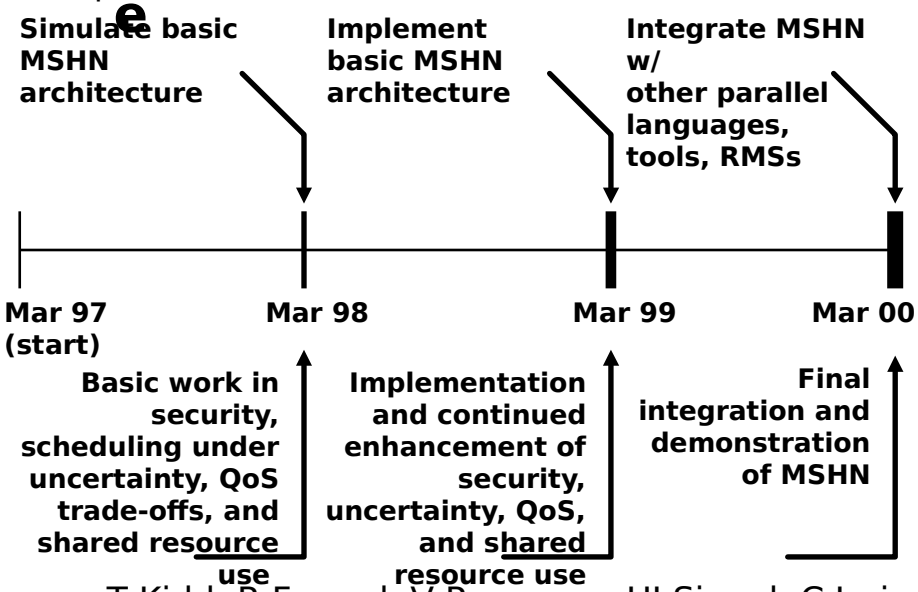
New Ideas

- Leverages Heterogeneity of
  - required Quality of Service (QoS)
  - resources, and
  - requests (amount and type of work requested)
- Allocates high level resources
  - using parametrized allocation model of low-level resources
  - does not micro-manage and can easily integrate new hardware (unlike dist. operating systems)
- "Compute Characteristics" used to identify resource needs
- maximizes probability of meeting multiple different QoS requirements
  - semi-Boolean, non-linear programming problem

Impact

- Increases quantity and quality of information reaching joint task force planner in crisis situations
- Via data-staging, increases the timeliness and quality of information in AICE.
- Increases capability of joint training by increasing scope and scale of battle field simulations
- Increases capability of joint C^2 by allowing infra-structure to adapt automatically to optimize operation for different stress conditions (e.g., nominal/peace time, crisis preparation, crisis warfare)

Schedule



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